

WHAT IS CLAIMED IS:

1. A device, comprising:
  - an at least partially plane antenna carrier with a first  
5 side and a second side,
  - at least one first Printed Wiring Board (PWB) being  
attached to said first side of said antenna carrier and  
having a first radiation structure formed on it, and
  - at least one second PWB being attached to said second side  
10 of said antenna carrier.
2. The device according to claim 1, wherein said first  
and/or second PWBs are one layer PWBs that comprise at  
least one metallic layer and/or at least one dielectric  
15 layer.
3. The device according to claim 1, wherein said first  
and/or second PWBs further comprise at least one adhesive  
layer, and wherein said first and/or second PWBs are  
20 attached to said antenna carrier via said adhesive layer.
4. The device according to claim 1, wherein a ground plane  
for said first radiation structure is at least partially  
formed by metallic elements of said device.  
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5. The device according to claim 4, wherein said second PWB  
is electrically connected to said ground plane.
6. The device according to claim 1, wherein said second PWB  
30 is a parasitic antenna element.

7. The device according to claim 1, further comprising a protection layer that at least partially covers said first PWB.
- 5 8. The device according to claim 1, further comprising at least one pogo pin that penetrates said antenna carrier to electrically contact said radiation structure of said first PWB.
- 10 9. The device according to claim 1, wherein said first PWB is positioned on said first side of said antenna carrier and said second PWB is positioned on said second side of said antenna carrier so that said first and second PWB at least partially overlap.
- 15 10. The device according to claim 1, wherein said first radiation structure is essentially line-shaped.
11. The device according to claim 10, wherein said first radiation structure is at least partially bent.
- 20 12. The device according to claim 1, wherein said second PWB is essentially plane.
- 25 13. The device according to claim 1, wherein said antenna carrier consists of a dielectric material.
14. The device according to claim 1, wherein a second radiation structure is formed on said first PWB, wherein said first radiation structure is tuned to a first frequency range and wherein said second radiation structure is tuned to at least one second frequency range.
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15. The device according to claim 1, wherein said device is a hand-held device, in particular a GPS-capable or Galileo-capable mobile phone.
- 5 16. The device according to claim 14, wherein said first frequency range is a frequency range of a satellite navigation system and wherein said at least one second frequency range is a frequency range of a mobile radio system.
- 10 17. A device operated according to a mobile radio system standard and a satellite navigation system standard, comprising:
- an at least partially plane antenna carrier with a first side and a second side,
  - 15 - at least one first PWB being attached to said first side of said antenna carrier and having a first and a second radiation structure formed on it, and
  - at least one second PWB being attached to said second side of said antenna carrier as a parasitic antenna element,
  - 20 wherein said first radiation structure is tuned to a first frequency range and wherein said second radiation structure is tuned to at least one second frequency range.
- 25 18. A method for generating a radiation pattern of an antenna, wherein said antenna comprises an at least partially plane antenna carrier with a first side and a second side, and at least one first Printed Wiring Board (PWB) that is attached to said first side of said antenna carrier and has a first radiation structure formed on it,
- 30 said method comprising:
- attaching at least one second PWB to said second side of said antenna carrier.

19. A computer program with instructions stored on a processor-readable medium, said instructions operable to cause a processor to control a radiation of an antenna, wherein said antenna comprises an at least partially plane antenna carrier with a first side and a second side, at least one first Printed Wiring Board (PWB) being attached to said first side of said antenna carrier and having a first radiation structure formed on it, and at least one second PWB being attached to said second side of said antenna carrier.

20. A radio system, comprising:  
- at least one base station, and  
- at least one mobile station,  
wherein said at least one mobile station comprises an at least partially plane antenna carrier with a first side and a second side, at least one first Printed Wiring Board (PWB) being attached to said first side of said antenna carrier and having a first radiation structure formed on it, and at least one second PWB being attached to said second side of said antenna carrier.

21. The radio system according to claim 20, wherein said mobile station is capable of receiving signals transmitted by at least one satellite and of at least partially determining its position from said received signals.